

### BACKGROUND OF THE INVENTION

The present invention relates to a handpiece or contra-angle used for endodontology.

Various instruments are known which can be used either to prepare or to bore tooth canals. Such instruments can be mechanized or manual, and can equally operate in continuous rotation or in reciprocating rotation. Rotational movement of the instrument is allowed by the contra-angle piece on which the instrument is positioned.

Such instruments are generally equipped with a shank, defined by the standard ISO 1797, for penetrating the head of the contra-angle. The head of the contra-angle is equipped with mechanical means for allowing the instrument to be removably attached to the head.

For known instruments, the user must always remove the instrument from the shank each time an operation is changed. This, in turn, increases the risks of prick injury and, therefore, the risks of contamination of both the user and the patient.

Furthermore, the means used to clamp the instrument onto the shank are bulky, which prevents small heads from being produced. This, in turn, restricts the user's visibility.

### SUMMARY OF THE INVENTION

In accordance with the present invention, these various disadvantages are remedied by providing an endodontal handpiece that does not require a change of the instrument for each new operation undertaken.

To this end, an endodontal contra-angle (1) is provided with a head (2) for supporting an endodontal instrument (3), and attachment means (5) for attaching a shank (4) penetrating the head of the contra-angle. The head (2) of the contra-angle (1) is provided with a member (6) which is fixedly assembled to the body of the head (2), and which is free to rotate.

The present invention will be better understood with reference to the following description, and with reference to the accompanying drawing.

### BRIEF DESCRIPTION OF THE DRAWING

The single accompanying figure illustrates an endodontal handpiece produced in accordance with the present invention.

### DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to the accompanying figure, a contra-angle (1) is provided with a head (2) for supporting an endodontal instrument (3), and axially aligned attachment means (5) for attaching a shank (4) penetrating the head of the contra-angle. A member (6) is axially positioned on the head (2). The member (6) is free to rotate about the head (2) of the contra-angle (1), but is permanently fixed to the body of the head (2). This, in turn, allows rotational movement of the instrument (3).

The contra-angle (1) is advantageously provided with a head (2) made entirely of plastic, constituting a reusable part and, as a result, limiting costs.

Advantageously, the member present on the head (2) of the contra-angle (1) is a pinion, and the pinion is made of a material which can be injection-molded, such as plastic.

A blade for the canal instrument is advantageously fixed to the pinion, and the pinion is overmolded onto the blade of the canal instrument to secure the two elements together.

Although the present invention has been described using particular embodiments, the present invention encompasses all technical equivalents of the means described.